

## **REMARKS**

Claims 95 is currently amended and claims 96-97 have been cancelled without prejudice to the presentation of their original scope in a continuing or divisional application. Claims 99-149 have been withdrawn subject to an earlier restriction requirement. Claims 150-155 are new.

Support for the amendment to claim 95 is provided in Example 18 (paragraphs 0170 and 0171; *n.b.*, reference to paragraph numbers herein correspond to those in the published patent application US 2008/0039816A1), Example 26 (paragraph 0181), and figures 16-19.

Support for new claim 150 is provided in Example 18 (paragraphs 0170 and 0171), Example 19 (paragraph 0172) and figures 16-19.

Support for new claim 151 is provided in Example 19 (paragraph 0172), Example 26 (paragraph 0181), and figures 18 and 19.

Support for new claim 152 is provided in Example 19 (paragraph 0172), Example 26 (paragraph 0181), and figures 18 and 19.

Support for new claim 153 is provided in paragraphs 0032 and 0033.

Support for new claim 154 is provided in Formula XXVIIb.

Support for new claim 155 is provided in Example 18 (paragraphs 0170 and 0171), Example 19 (paragraph 0172) and figures 16-19.

No new matter is being entered upon entry of these amendments.

### **I. Rejections under 35 U.S.C. § 112**

Claims 95-99 stand rejected for allegedly being indefinite. This rejection is moot in view of the amendments to claim 95 and the cancellation of claims 96-97. As well, claim 98 only limits the composition of the nanocrystalline core, which is not addressed by the rejection.

Claim 99 was improperly rejected as it stands withdrawn as a result of the restriction requirement. Accordingly, Applicants request that this rejection be withdrawn.

### **II. Rejections under 35 U.S.C. § 102**

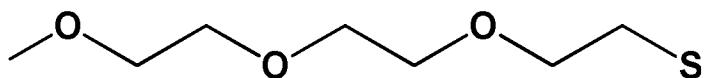
Claims 95, 96 and 98 stand rejected for allegedly being anticipated by U.S. Pat. No. 6,306,610 (“Bawendi”). This rejection is moot in view of the amendments to claim 95 and the

cancellation of claim 96. Indeed, Bawendi does not teach, suggest, or motivate one of ordinary skill in the art to prepare quantum dots that include a luminescence promoter comprising a mercapto triethylene glycol group that does not have an associated charge in solution, such as the use of mTEG, or is derived from mTEG-SH. These compositions are further discussed and described in Example 18 (paragraphs 0170 and 0171), Example 19 (paragraph 0172) and figures 16-19 of the instant specification. Applicants request this rejection be withdrawn.

## **II. Rejections under 35 U.S.C. § 103**

Claim 97 stands rejected for allegedly being obvious in view of Bawendi and further in view of US2005/0250097) (“Duffy”). This rejection is moot in view of the cancellation of this claim.

Claims 95-98 stand rejected for allegedly being obvious in view of Barrientos in view of Lin, Bruchez, Bawendi and Zhang. These rejections are moot in view of the amendment to claim 95 and the cancellation of claims 96-97. Indeed, none of the references teach, suggest, or motivate one of ordinary skill in the art to prepare quantum dots that include a luminescence promoter comprising a mercapto triethylene glycol group that does not have an associated charge in solution, such as the use of mTEG (methoxy-TriEthyleneGlycol), or is derived from mTEG-SH (methoxy-TriEthyleneGlycol thiol). An example of such a luminescence promoter can be represented by the following formula:



In this formula, the sulfur at the right end of the luminescence promoter as shown above is bonded to the nanocrystalline core. The methoxy group on the left end of the luminescence promoter as shown above helps to prevent the generation of an associated charge in solution, as described in the specification in Example 26, paragraph [0181]. Indeed, this type of luminescence promoter was found to provide superior results (i.e., bright and stable quantum dots) compared to quantum dots not having such a luminescence promoter. Accordingly, Applicants request this rejection be withdrawn.

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**PATENT**

### **III. Conclusions**

Applicants request the amendments and new claims be added and, accordingly to reconsider and withdraw the rejections. Applicants submit that all rejections concerning the patent application have been addressed and urge the examiner to pass the application to allowance. If there are any remaining issues, the examiner is requested to telephone the undersigned attorney.

Respectfully submitted,

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